

near that town: these have every appearance of belonging to this species; they are decidedly larger than the eggs of *S. cantiaca*.

166. *STERNA CANTIACA*, Gmelin. Sandwich Tern.

Seen near Damietta.

167. *STERNA ANGLICA*, Montagu. Gull-billed Tern.

The most common species of Tern in the interior of Egypt, frequenting marshy places.

168. *HYDROCHELIDON FISSIPES* (L.). Black Tern.

Seen near Damietta in April.

III.—On the Ornithology of Palestine. Part V.

By the Rev. H. B. TRISTRAM, M.A., F.L.S., C.M.Z.S.

(Plate I.)

[Continued from 'The Ibis' for 1866, page 292.]

No families of birds are more largely represented in Palestine than the Warblers, the *Sylviinæ* and *Luscininæ*, including especially the *Saxicolinæ*, almost as varied and as perplexing as the Larks. If we cast our eye down the catalogue, we find sixty-one species of the Sylviads enumerated,—a list which we can hardly believe to be nearly complete; for the occurrence of many of the species we met with is a pretty sure indication of the presence, occasional at least, of many others. It cannot be assumed that *Luscinia philomela*, for instance, will not be found, or that *Salicaria aquatica*, *Locustella naevia*, and other species of wide range are not represented. I do not know of a more admirable post of observation for the British ornithologist who wishes to study the habits of the Warblers in our lists, actual or reputed, than the Holy Land. He will have the double advantage of familiar association during the winter months with nearly all our summer migrants; while in spring he may watch from day to day the nidification of all those species which either an erratic spirit of ornithic adventure, or the ingenuity of dealers have added to our array of occasional visitants.

There are two very distinct tides of Sylviad immigration in Palestine. In October and November thousands of the hardier species pour down into the lowlands and wadys, where they remain till February or March. Then for a month the land is left almost deserted, till in April and May the spring arrivals commence, and every thicket is tenanted by species either strange to our shores or known only by the occasional capture of a straggler. Such are *S. orphea*, *Aedon galactodes*, *Hypolais elatica*, and *H. upcheri*. We were especially fortunate in our opportunities of watching the nidification of the less-known species; and I believe there is no class of birds in which the style of architecture, with the coloration and form of the egg, casts more light on the true grouping of species and the arrangement of genera. Possessed of a good series of the eggs of the *Luscinidæ*, we might classify the species accordingly, and find that we had scarcely in one instance diverged from the recognized order of our best systematists. Thus the unique egg of *Cettia sericea* separates it at once from all our other Palæarctic Warblers, and points out its affinities to the long-tailed *Prinia* group of the Indian region. Then the eggs of Savi's and the Grasshopper-Warbler group them apart, and link them to the very similar eggs of the Australian *Megalurus* and *Calamanthus*. *Cisticola* and *Drymæca*, varying as they do, still vary within the same limits as the Oriental *Prinia* and *Orthotomus*, to which we must admit their affinities. The egg of *Aedon* stands out alone, steadily demanding a distinct and isolated position, which all who are familiar with its manners and note will readily grant, but approaching in habit, as in its eggs, the Indian *Thamnobiæ*.

The great group of *Calamoherpe*, from whatever part of the world they come, have but one unmistakeable character of egg, sharply defined from all the other groups. The beautiful and fragile eggs of every member of the genus *Hypolais*, though each distinct in markings and in ground-colour, from the richest salmon hue to pale ashy white, but all of a peculiar rough texture, are a group almost as isolated and peculiar as *Pycnonotus*, with no affinities approaching *Phyllopneuste*. These again, though infinitely varying within themselves, disclaim alliance with any of the other Sylviads. We then have the

genus *Sylvia* as restricted by Bonaparte, of which our White-throat is the type, with its greenish ground-colour and the spotting different in each species; while *Melizophilus* and *Pyrophthalmus* are evidently aberrant members of the same family. Next we may take the *Curruca* as restricted by Bonaparte, with the eggs always of a whitish or brownish-white ground, and the markings set each in a nimbus of fainter colour, as in our Black-cap and Garden Warblers; while *Nisoria undata*, a good genus, comes next them by its ground-colour, but wants the spots.

The Redbreast, pugnacious as he always is, stands aloof from any entangling alliances, and asserts an independent position as *Erythacus*, which introduces us to Mr. Gray's subfamily of *Luscininæ*, comprising all the remaining Sylviads. Here we find a character pervading almost the whole subfamily in the coloration of the eggs, which is never found in the first subfamily *Sylviinæ*, viz. the blue or bluish-white ground-colour. *Copsychus*, *Myiomela*, *Saxicola*, *Ruticilla*, *Thamnobia*, and all their subdivisions have this common feature. The most aberrant are the genera *Luscinia* and *Cyanecula*, with their uniform olive-green coloration. But, as we well know, the Nightingale's egg is not unfrequently blue, and the identity of the colour in the eggs of the Bluethroats attests their affinity to the Nightingale. All the innumerable species of *Saxicolinæ* lay blue eggs, either plain or spotted; and frequently, as in the *Turdinæ*, we find two closely affined species laying one a plain, the other a spotted egg; while occasionally the eggs of comparatively distant members of the family are identical, as in the case of *Saxicola ænanthe* and *S. isabellina*. Of the five species of the subgenus *Dromoleca*, of which I have taken the eggs, four are of the faintest bluish-white, with ruddy spots, and the fifth a rich blue ground with similar spots. From these we are led on to *Ruticilla*, the eggs of which are never spotted, though the ground-colour varies from pure white in the single instance of *R. tithys* to the most delicate white with the faintest bluish tinge in *R. moussieri*, up to the very dark blue of *R. semirufa*, a bird most closely allied to *R. tithys*. Finally, we have the spotless blue of *Sialia* and *Accentor*, with which last I find much difficulty in grouping Mr. Gray's *Acanthiza*, or the *Siurus* of the New World.

But this digression on eggs in general is scarcely in place among notes on the birds of Palestine. To proceed to the species in detail. Of the *Malurinæ*, so abundantly represented in the Ethiopian and Indian fauna, Palestine possesses but three species, *Drymæca gracilis* (Licht.), already described (Ibis, 1865, p. 82), a second *Drymæca*, and *Cisticola schænicola*, Bp. I cannot find this second *Drymæca* described by Rüppell or any other author; and as it is very distinct from any other species I have seen, I venture to describe it as new.

DRYMÆCA EREMITA, Tristram.

Suprà fuscescenti-cinerea, pileo, occipite et nuchâ nigro striolatis, superciliis purè albis, lineâ inter rictum et oculum et ab oculo ad aurem nigrâ; remigibus cinereis; caudâ fuscescenti-nigrâ et obsoletè transverse xxv. striis nigris fasciatâ; rectricis extimæ pogonio exteriori et apice albo limbatis: subtùs alba, mento et pectore nigro striatis; hypochondriis et ventre castaneo tinctis; rostro et pedibus pallidè aurantiacis; iridibus pallidè fuscis. Long. tot. 4·45, alæ 2·75, caudæ 2·1, tarsi 0·75, rostri a rictu 0·5.

Hab. in deserto Judaico et Arabiâ Petræâ.

Its nearest congener seems to be *Drymæca striaticeps*, described by me from the Sahara in 'The Ibis' for 1859 (p. 58), from which it may be at once distinguished by the broader dark striæ on the head and neck extending further down, by the distinct white eyebrow, the throat and breast striated with black instead of the dull uniform white of the African bird, and the deeper russet of the flanks. We met with it only in the desolate wady opening on the west side of the Dead Sea, where it flitted restlessly from one little desert shrub to another, differing in this respect from *D. striaticeps*, which I found in moist oases among tamarisks. In its note and flight it differs much from *D. gracilis*, and is very difficult of approach. We found one or two in each wady, but never two together; and it inhabited ravines where the Rock-Chats were the only other birds that could find sustenance. So wild and wary was it, that the first specimen observed, which we at once recognized as a species new to us, cost Mr. Upcher and myself two hours' pursuit in the Wady Areyeh, and eleven shots, before we secured it. We rarely could get a glimpse of it, as it restlessly flitted about eighty yards

ahead, secreting itself in the line of brown bushes which fringed the ravine. We afterwards found it in more exposed situations. The Rev. F. W. Holland has since brought home a specimen from Wady Feiran, near Mount Sinai. Rüppell has named another Arabian species "*D. inquieta*," an epithet which none can so well deserve as this little solitary hermit. We did not obtain its eggs; but those of *D. striaticeps*, which have not been described, are white, thickly powdered with pink spots. The note of *D. eremita*, by which we were at first attracted to it, and by the sound of which alone we were able to pursue it, has five syllables, much softer and mellifluous than the cheery and almost startling tones of *D. gracilis*. I should mention that all these species of *Drymæca* have the obsolete barring of the tail, so characteristic of *Pseudoluscinia luscinioides* and *P. fluviatilis*.

Cisticola schænicola, a bird of wide range, extending from North-west Africa to India, China, and Formosa, rejoices in the moist maritime plains of Palestine, where we found it all the year round, starting up from the long grass in front of our horses, jerking up in the air for a few seconds as it rapidly repeated its single note "*pink, pink*," and then dropping suddenly again, when it was very difficult to put it up a second time. Its nest is a beautiful cabinet edition of the Reed-Warbler's transferred to *terra firma*, and formed of the finest cotton and spiders' webs among grass-stems. In this respect it differs much from the architecture of *Drymæca*.

The localities suitable for the Marsh-Warblers are few and far between in the Holy Land; and consequently, though the number of species is very large, they are for the most part but scantily represented in individuals. Without exception, so far as we could discover, they are all migrants, returning earlier or later in spring. On most of them we had not many opportunities of making observations. *Calamoherpe palustris*, *Calamodyta melanopogon*, and *Pseudoluscinia luscinioides* we identified but by single specimens, though the latter we often heard. It is not the first time that I have found "heard not seen" to be the motto both of Savi's and Cetti's Warblers. *Pseudoluscinia fluviatilis* was not much more abundant; yet we several times met with a pair evidently engaged in domestic duties, but searched in

vain for its nest, one of my special desiderata. *Calamoherpe strepera* and *Calamodyta phragmitis* were very common from the last week in March in every locality where the herbage and moisture gave them the slightest cover. All the species returned about the same time, with the exception of *Calamoherpe arundinacea* and *C. strepera*, which preceded the others by about a fortnight in the beginning of March; and I see, on reference to my note-book, that we obtained a specimen of every Marsh-Warbler on our list between the 28th March and the 4th April. *C. arundinacea* was, next to the Reed- and Sedge-Warblers, the most abundant species; and its harsh dissonant note, or rather screech, which some one has imposed upon Dr. Jerdon by calling a "charming" song (!), might be heard at sunrise from every tuft of tall canebrake. Truly I can wish the flatterer who called its note "charming" no greater punishment than to have to camp, as we had, near a reed-bed when half a dozen of these noisy birds made the moonlight night hideous with their jarring scream. There is one species which we could not obtain, which I saw repeatedly among the papyrus-swamps of the waters of Merom (Lake Huleh), a region which is an impregnable refuge for every sort of marsh- and water-fowl. It looked just like the common *C. arundinacea*, perhaps smaller; but its note, though quite as harsh, was far more powerful than any I had ever heard. At the time I supposed the bird, which it was hopeless to attempt to secure, to be *C. brunescens* of India; but on reading Mr. Allen's notice of *Acrocephalus stentorius* (Ibis, 1864, p. 97), I have not the smallest doubt of the identity of the Huleh bird with his Damietta specimen. But besides this there are, so far as I can judge, two distinct forms of *C. arundinacea* in Palestine, the one decidedly darker and larger than the other,—the wings being in the one 3·6 inches, in the other 4·1 from the carpal joint, and the tail respectively 3 and 3·75 inches in length. There is also a very slight difference in the relative length of the second and third primaries. But, with a large series before me from every part of the Mediterranean countries north and south, I am unable to discover any difference sufficiently clear on which to found a specific diagnosis, unless it be the disproportionate length of the tail, which does not occur in any of my French, Spanish, Algerian, or Egyptian specimens.

Cetti's Warbler is by no means among the rarest of the Saliarians of the Holy Land. I say Cetti's Warbler generically; for, though I should not wish to be included by critics among the species-manufacturers like Brehm, yet I must claim some distinctness for the Oriental *Cettia*. The plumage is decidedly more chocolate-colour, and the bill both longer and much broader at the base. I can see no difference between Spanish, Algerian, and Italian specimens, which are perfectly identical. The diagnosis of what I will venture to call *CETTIA* (*POTAMODUS*) *ORIENTALIS* is this—

Statura simillima *C. sericea*, dorso quoque concolor, sed pectore et ventro olivaceo nec cinereo fuscata: rostrum 0·7 a rictu et 0·2 in latitudine ad basim; quod in *C. sericea* 0·5 a rictu, et 0·15 in latitudine ad basim.

The olive hue of the white of the lower parts at once distinguishes it. It is a very late arrival from the south: at least it was not till May that we heard its unmistakeable note; for it was rarely to be seen, and possibly might have been skulking in silence before the nuptial season evoked its song. It seems to prefer the margins of very narrow streams and ditches, so long as they are well fringed with thicket, to larger pieces of swamp; and most tantalizing was it time after time to hear the sudden burst of a resounding song like the first part of a Nightingale's suddenly cut short, from the centre of some impenetrable tangle of prickly bramble, into which we might pitch stones in vain until we were startled by the same note issuing from the next thicket. Often as I expended time, eyes, and powder, I only secured three specimens, after killing perhaps a score; for to retrieve them was almost hopeless. They start up, and dart down the moment they have cut short their abrupt distract. A snap shot, and, unless the bird fell impaled on a thorn, search was useless, with a bottom six feet deep in tangle. I once had a double shot, which cost me dear. Wading up a tributary of the Barada in pursuit, I at length got a good momentary view of the prize; but while securing him some of the shot had gone further, and on the other side of the bramble-thicket had struck a peasant of Zebdany in the face and eye. The Syrians are not so amiable as Lord Lilford's pretty Spaniard promised to be had he bagged

her along with his *Cettia* (Ibis, 1866, p. 383): and as we were sitting in our tents at dinner, quite unconscious of harm inflicted, we were invaded by a posse of villagers under arms, who imperatively demanded damages; and, though we carefully extracted all the shot corns, and satisfied my quarry that neither eye was at all injured, the shot proved dear enough, and that *Cettia orientalis* is one of the most costly specimens in my cabinet.

The most conspicuous and attractive of all the Warblers of Palestine is *Aedon galactodes* (Temm.), and it is perhaps the most abundant in summer. But it returns very late. On the 14th April this species appeared in great numbers, and overspread every part of the country, wet or dry, where there were bushes or reeds. The return was simultaneous, and from that time its bright chestnut plumage, with its black-and-white-tipped tail expanded like a fan, enlivened every thicket and thorn-bush. In no way whatever does it resemble the Marsh-Warblers in action or note. Its song is low, soft, and mellifluous. It is constantly seen, and, instead of skulking in thickets, hops here and there, perching on the outmost bough of any bush or on the stem of a tall cane, expanding and jerking its tail like a Wren. It is curious that a bird which remains all the winter in the Sahara should be so late a migrant in the warm regions of the Holy Land. The species there is identical with that of South Europe and North Africa; and out of the innumerable birds we saw, of which we preserved over thirty specimens, I never met with an individual of *Aedon familiaris* (Ménétr.), said to be the common species in Asia Minor, and also given by Dr. von Heuglin in the list of birds from the Red Sea (Ibis, 1859, p. 341) to the exclusion of our bird. Can there be some error here? After examining Mr. Gould's specimens from Smyrna, I can have no hesitation in assenting to the marked difference between the two. The nests of *Aedon* are very easy to find, and our old African experience assisted us; for the tamarisk is its favourite tree, and without more attempt at concealment than an English Mistletoe-Thrush, it piles its large nest in a low fork. As in Algeria, so here, we found the serpent's skin an invariable ingredient in the lining of the nest, and the green lizards our

provoking rivals in egg-collecting. The Palestine eggs, of which I have a large series, are very much more delicately and sparsely spotted than those of Africa, and, arranged together with them, would at first sight be pronounced to be distinct. Yet we took perhaps twenty nests in each country, all of them indisputably identified, and the distinction holds uniformly true. The skins are precisely alike. Lindermayer gives April 27th as the date of return to Greece, where the species is identical with the Palestine bird, and not *A. familiaris*. I found it breeding in canebrakes by the shores of the Dead Sea the last day of April, and in June on Lebanon at a height of 7000 feet.

The section *Hypolais* is well represented by three species. Of these the largest, *H. olivetorum*, is confined to the olive-groves and the oak-coppice in the north of Palestine, generally near the coast. Further inland its place is taken by the nearly allied *H. upcheri*, nob. (Proc. Zool. Soc. 1864, p. 438), which has probably been confounded with its congener. The lesser species, *H. elaica*, abounds everywhere, and, returning in the end of March (our first specimen was shot March 23rd), takes the place of the Willow-Wren, *Phyllopneuste trochilus*, which has by that time moved its camp northwards. I conceive that *H. upcheri* and *H. elaica* are the eastern representative species of *H. icterina* or *italica* and *H. polyglotta*. They correspond precisely in measurements to these species respectively, but differ similarly in the entire absence of the green and yellow hues in the coloration, which is ashen on the back and ashy-white below. Yet they differ very decidedly in their eggs from their western representatives.

The key to the specific distinctions of all the species of *Hypolais* is in the relative length of the bastard primary. In *H. olivetorum*, the largest of the genus, it is extremely small, only reaching half the length of the outer tectrices. In *H. icterina*, *H. upcheri*, and *H. obscura* of South Africa it is the same length as the tectrices. In the smaller species *H. polyglotta*, *H. elaica*, and *H. pallida* of North Africa it is considerably longer. I may here mention that I can discover no distinction whatever, after the most careful comparison, between *H. icterina* of Italy and *H. obscura* from Damaraland: their coloration and measurements

precisely correspond. It has been already mentioned that the eggs of all the species bear a very strong family likeness, though each is distinct at a glance.

H. elaica is the most common species in Palestine, frequenting, however, chiefly the warmer valleys and the plains of Jordan. It commences its nest immediately on its return. This is a very neat, compact structure, of a deep cup-shape, its depth equalling its diameter, formed of fine grass and strips of bark, and tightly lined with thistle-down and vegetable cotton. It is placed two or three feet from the ground, in a fork of the small *Solanum sanctum*, or on the twigs of a tamarisk or oleander, containing four or five eggs, of salmon-tinted white ground, with purplish spots and streaks like those of *H. pallida* and *H. olivetorum*. In markings they resemble those of *H. polyglotta*, but have not their rich pink ground-colour. Its note is soft and melodious, something like our Lesser Whitethroat; and the male often indicated the nest by singing continuously, concealed in a tree close by. Our first recognition of Upcher's Warbler was from finding a nest in an orchard under Mount Hermon, from which a bird stole off, which I took to be *H. elaica*, till I noticed the eggs to be of a rich salmon ground and almost as large as those of the Olive-tree Warbler. I waited till the bird returned, and then secured both parents, when I ascertained that I had got hold of an exactly intermediate species. Its note is unlike that of *H. elaica*; and it frequents very different localities, the uplands of Hermon and Lebanon, in the vineyards and oak-coppices. The nest was usually placed in a bush of *Vitex agnus-castus*, or Linden tree, never more than a yard or two from the ground, neat and conspicuous. We found this bird very abundant in its restricted localities. Its eggs most resemble those of *H. polyglotta* in ground-colour, but are twice the size, I think that for beauty they are unrivalled among the whole family of Sylviads. The bird has been described by me, as above mentioned.

With the genus *Phyllopneuste* for the most part we could only make acquaintance in winter, when our Willow-Wren, Chiff-Chaff, and others positively swarmed in every part of the country, and especially in the Jordan valley. With *P. trochilus*

and *P. rufa* were mingled a few of other species. I take Ehrenberg's *Curruca viridula* to be only our *P. trochilus*; but we shot a few specimens of a bird which I took at the time for *P. rufa*, but which is larger and corresponds with Mr. Strickland's description of his *P. brevirostris*, obtained at Smyrna in winter. We also got one or two specimens of the Yellow-browed Warbler, or so-called Dalmatian *Regulus* (*Reguloides superciliosus*) at Jericho, creeping among the thickets by the water-side, but never saw it again elsewhere. It appears to be only a scarce straggler in winter. The earliest of these species to depart was the Chiff-Chaff, true to its character as the earliest arrival in England; and by the end of February the whole of them had disappeared. The Willow-Wren remained a fortnight later.

It was curious that we never met with a specimen of *P. sibilatrix* in winter; but on the 26th April they suddenly appeared, on which day Mr. Bartlett shot more than a dozen, and until the second week in May they were very common, after which we saw them no more; nor did we ever find a nest. The species seems merely to be of passage on its way to the north. In Algiers I have noticed them in the beginning of April. Before their return, about the 1st of April, *P. bonellii* arrived and rapidly dispersed to its various haunts, remaining to breed, which no other member of the group did. Its habits are like those of *P. trochilus*, its voice very weak, and its nest on the ground, with eggs closely resembling our Wood-Wren's, but with the spots red rather than chocolate-colour. Bonelli's Warbler seems to affect the wooded hills, as Carmel, Tabor, and the lower slopes of Hermon, in preference to the low grounds, where we did not meet with it.

Of the other Sylviads, the Common Redbreast (*Erythacus rubecula*) was scattered everywhere by ones and twos throughout the country in winter, singing lustily when all else was silent, and as bold and familiar as at home; but not one remained after February. The common Whitethroat and the Blackcap are very abundant everywhere, and remain throughout the year; but the numbers of the former appeared to be increased, and of the latter considerably diminished, in spring. The nests of the Whitethroat became a perfect nuisance when out searching with

the Arabs. Every second nest discovered was sure to be *Sylvia cinerea*; but with our Bedouin one nest was as good as another, and off one had to trudge, perhaps from watching some rare Bunting or Redstart, to inspect our familiar friend, whom we scorned to disturb. The Palestine specimens are much clearer in plumage than our own, and slightly larger; the tail, however, is too long to suit Mr. Blyth's diagnosis of *Sylvia affinis*. It is curious that, while this bird and *S. curruca* are alike cold-weather visitants to India, *S. cinerea* is a permanent resident, but *S. curruca* only a spring migrant in Palestine. It returned in March, and was very common in the hill-country, breeding everywhere. We found its eggs high up on Lebanon the second week in June, elsewhere in May. *Sylvia hortensis* we only found in spring, and it remained to breed; while *S. atricapilla* was far more abundant in winter than afterwards, though still common enough. In winter it was gregarious, and all the males we shot were in the same livery as the females, the black cap not being assumed till March.

On the bare highlands of the wilderness of Judæa, and on the desolate plains of Jordan, a few individuals of *S. conspicillata* might constantly be seen, flitting briskly from one little tuft of salsola to another, and, as in Malta and the Sahara, permanent residents. In the salt-plain, at the south end of the Dead Sea, I shot in January a single specimen of *Sylvia doriae*, a species which I took to be new, but which I find very accurately defined by Dr. De Filippi (Viaggio in Persia, p. 348). He found it very abundant in salt-deserts. The Rev. F. W. Holland has also brought it from the Sinaitic peninsula. Rüppell's Warbler, *Sylvia capistrata*, is another permanent resident, but scarce, and only found in similar localities to *S. melanocephala*, which is very generally distributed, and remains throughout the year in the scrub on the sides of the upland wadys, secreting itself, after the manner of our Wood-Wren, in the bushes of *Poterium* and Lentisk. We met with twenty specimens of the Sardinian for one of Rüppell's Warbler. We were unable to make any observations on the habits and nidification of this rare and little-known species. In Algeria both birds are likewise resident; but while I there obtained many nests of *S.*

melanocephala, we were not fortunate enough to discover one in Palestine. There was one curious contrast between its habits in Algiers and Palestine. In the former it resorts to the gardens and hedgerows close to the city, like our Hedge-Sparrow, and is not found in the open country or in the Sahara. In Palestine we repeatedly took it in the winter in the wadys abutting on the Dead Sea, and even at Jebel Usdum, the salt-mountain, wherever there was a little fresh vegetation. A large series of these specimens exactly corresponds with those of Algeria. But at the same time we found in the more luxuriantly wooded districts, as at Jericho, another very closely affined species, distinct in its coloration at first sight and rather smaller, which I do not find noticed by any writer. I venture, therefore, to describe it, and dedicate it to my friend and companion Mr. H. T. Bowman, who shot the first specimen.

SYLVIA BOWMANI, Tristram, sp. n.

S. melanocephalæ simillima, at paullo inferior staturâ et gracilior. Pileo nigro distinctiore, et abruptè definito, neque ultra occiput descendente. Suprà tota pallide cinerea, nec grisea nec nigro-olivacea ut in *S. melanocephala*. Subtus purè alba, abdomine infimo pallidissimè vineo tincto.

Long. tota 5, alar. 2.15, caudæ 2.2, tarsi 0.75, rostr. a rictu 0.5 poll.

Hab. in valle Jordani.

Had we not found these two species in the same district I should have hesitated to discriminate them; but the difference in coloration can scarcely be an individual variation, while the habitats, of the one in the open scrub, of the other in the tropical wood, are very distinct.

Sylvia orphea is another summer visitant, returning in the beginning of April, and affecting chiefly the groves and olive-yards of the northern part of the country. Near Banias, under Mount Hermon, it is especially abundant; and its note, with greater compass, but not more sweetness, than the Blackcap, resounds in the early morning, and is continued at intervals through the day. The nests were loose open structures, rather shallow, and placed in low bushes near the ground. The eggs were generally laid the first week in June, though we found some earlier. Ehrenberg makes the Palestine species distinct

from the western, under the name *S. helenæ*, on account of the difference in the length of bill; but though the average run of specimens have certainly longer and stouter bills than European individuals, yet we obtained both forms, and in one instance found the male bird long-billed, and the female, shot from the nest at the same time, of the ordinary European type.

The beautiful *Nisoria undata* we only saw for two days in April. Our party was separated. I was at Jericho, and on the 27th saw numbers of these birds scattered up and down the wadys, generally skulking among the bushes, very shy and restless; Mr. Cochrane and I shot and preserved several; but in two days they had all disappeared. Mr. Bartlett was at the time on Mount Tabor. On the 28th he there secured half a dozen specimens in the Wady Bireh and on the Plain of Gennesaret, but never saw one again, though we believed we detected it once or twice on Lebanon in June, but were unable to secure or identify it. No other passing migrant, except the Wagtails, appeared to hasten so rapidly through the country. The Greater Nightingale (*Philomela major*), though an Eastern form, we never recognized; but the common Nightingale, *P. luscinia*, returned in tolerable numbers about the middle of April, frequenting especially the fringe of trees by the banks of the Jordan. We also found it on Tabor and in various wooded wadys.

Cyanecula leucocyanea and *C. succica* are both of them winter visitants, resorting to the marshy lowlands and the banks of small streams, frequently in consort with Pipits. We found the two species sometimes together, though the former was the more common. They remained up to the middle of April, after which we saw them no more. They are very quiet; and we never observed them to perch, or leave the marshy grounds, being at this time of the year decidedly aquatic in their habits.

Of the Redstarts we obtained three species, the most common and conspicuous being *Ruticilla tithys*, which finds a congenial home throughout the year in the rocky hills of the Holy Land. During winter it is the most common and conspicuous bird on those dreary ranges, and especially affects the sea-coast, as near the Ladder of Tyre. It is partially migratory, ascending in spring to the spurs of Lebanon and the sides of Hermon, very

few remaining further south to breed. Whether the so-called *R. cairii* be a species or not I cannot say, or whether, perhaps, it is only an imperfect state of plumage; but we shot males in that sombre livery in winter at the same time that we obtained a far greater proportion in the full rich plumage, with the white on the wing-coverts very distinct. We had few opportunities of noting it when the season advanced, and did not then obtain any males in the garb of *R. cairii*. The common Redstart, *R. phoenicurus*, was strictly a summer migrant, arriving simultaneously all over the country about the 12th March, but only in the more wooded localities and the neighbourhood of gardens.

The third species, *R. semirufa*, H. & Ehrenb., is most restricted in its range, occurring only on the higher slopes of Hermon and Lebanon. On the former mountain it is scarce, and though we saw two specimens we were unable to secure them, and our first captures were in June on ascending to Ainât from the plain of Cœle Syria, where it was plentiful in the stunted oak-groves. While shy and wary, the male bird is too striking in appearance easily to elude observation, and its restlessness, cheerful and varied note, and habit of perching on an exposed bough or stone, expanding and jerking its bright cinnamon tail, soon betray its presence. Though its range is so extremely limited, yet in the Lebanon district it frequents all kind of ground alike, both the naked cliffs and summits of the range, the woods, and especially cedar-groves, and not less the mulberry-plantations of the villages. At the famous Cedars it was very abundant, and we saw at least fifty scattered about there. Its song resounded from the lower boughs of the old patriarchs; but after expanding its tail for a few seconds, it always changed its perch and flitted on, sometimes going into the open, perching like a Rock-Chat on a boulder, and then dropping out of sight on the other side. The back, wing-coverts, throat, and breast are glossy black, with an iron-grey cap; the rest of the lower part of the body, with the rump and tail, bright cinnamon, the two middle rectrices alone being for two-thirds of their length a darker russet. There is no trace of white about it anywhere. The female is very like that of the Indian *R. aureora*, wanting only the white wing-spot, of a uniform russet, except the tail, which

is like the male's. I have never seen any other member of the genus which can be confounded with it. *R. rufiventris* approaches nearest to it, but is very different both in the colour of the back and in the proportion of the red. It is strange that so peculiar a form should not have been elsewhere noticed, not even in Asia Minor or in Persia by Dr. De Filippi. Most birds of restricted geographical range are sedentary. Whether *R. semirufa* be so we have not ascertained; but if it be not merely a summer visitor, it is remarkably late in nesting; for on the 26th June, on going down from the Cedars to Meiruba, we took a nest with four eggs not very hard-set, having caught the bird with the hand, as she remained under the little crevice in the rock where the eggs were deposited in a slightly built nest. It was on the ground, on the side of a precipitous hill. On the preceding day we had obtained two nests of *Emberiza cia*—not a bad capture so late in the year; and the final close of our nesting-season was on the 26th June, when descending the Lebanon, with the glorious view of the Mediterranean, on which we were soon to embark, just opening before us. The colophon of my egg-book for 1864 is, "Nest of 4 eggs, *Ruticilla semirufa*, ♀ caught on nest. Eggs not before known." I may add that they are like those of our common Redstart, but of a more delicate and paler blue.

Of the Rock-Thrushes, *Petrocincla saxatilis*, whose red tail and Redstart-like habits link it most closely with the *Ruticillinæ*, is in most parts of Palestine merely a passing traveller, and tarries but a night. On the 8th April the whole of Mount Gerizim was covered by a restless flock of these birds, which, at a distance, we took for the Black Redstart, so exactly did they resemble that bird in their actions. They hopped restlessly from rock to rock, never taking a flight of more than a few yards; and in this fashion, in loose order, ranging for perhaps a mile in breadth, they appeared to be steadily proceeding northwards. When the foremost line had reached the valley, they took a flight across to the foot of Mount Ebal, over the gardens, and then more leisurely mounted the hill. We shot about a dozen, but, being at the time without the assistance of Mr. Bartlett's nimble fingers, I only saved a pair. Afterwards



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WILLIAM B. BIRD

MANUFACTURED BY

ELIZABETH A. BIRD

we occasionally met with this bird in the Upper Lebanon in the month of June, where, no doubt, it was breeding.

Very different in its manners, though not in its home, was *Petrocincla cyanea*, the well-known Blue Thrush. All the year round it is to be found wherever stones crop above the surface, whether by the shore, on the hills, or especially among ruins, but always solitary. Rarely ever were a male and female to be seen together. I had scarcely expected to find it as I did, along with the Black-and-white Kingfisher on the coast, sitting among the surf-beaten rocks and feeding on sandlice and shrimps. On two occasions I killed it from the shore, and had to wade into the sea to secure my specimen. Unsociable as it is, it yet frequents the dwellings of man, a taste for stonework evidently overcoming all other prejudices; but nowhere is it more thoroughly at home than among the ruins of a deserted and untrodden Roman city, like Gerash, Rabbah, or Gadara. The "vomitoria" of the amphitheatres are exactly to its liking; and in the recesses of these it has its nest, the male meanwhile perched on the top of an old column and uttering his dolorous ditty. Mr. Cochrane and I took a nest with four fresh eggs on April 2nd, in one of the robbers' caves in the Wady Hamam, near the Sea of Galilee. The nest was conveniently placed on a shelf far in, without any attempt at concealment, and was like the nest of our Blackbird, with mud mingled with the straw, instead of a shell of cow-dung. This bird is with good reason believed to be the "sparrow that sitteth alone upon the housetop" of the Psalmist. The young birds were fledged at the beginning of May. The eggs are a very pale blue, smaller than those of the Thrush.

A link also between *Ruticilla* and *Saxicola* is to be found in *Bessornis albigularis* (Plate I.). This bird was first described by Herr von Pelzeln at Vienna in October 1863, under the name of *Saxicola albigularis*, from Smyrna specimens of Dr. Krüper's. My reasons for changing the genus I shall give. De Filippi (Viagg. in Persia, p. 347) has set forth a new genus, *Irania*, and described under it a bird as *Irania finoti*, which, so far as I can make out, is nothing else than the female of the *B. albigularis*. It is impossible, I think, for any one, on observing this beau-

tiful form, whether in life or as a cabinet specimen, not to admit that, though Saxicoline in its affinities, it is a very aberrant member of the group. It corresponds in all generic features with Sir A. Smith's genus *Bessonornis* (recte *Bessornis*), which was formed for the reception of more than a dozen African species, differing from *Saxicola* in the length of tarsus, elongated tail, and having the rufous coloration of *Ruticilla*. To this type our present species undoubtedly belongs, in proportions, anatomy, coloration, and habits; and De Filippi's genus *Irania* appears to me a mere repetition of the older *Bessornis*.

On the afternoon of June 4, 1864, I was rambling alone among the vineyards and pear-orchards which stretch about three miles above Rasheiya to the very verge of the naked sides of Hermon, and the icy water from the melting snows was trickling even then, in refreshing rivulets, through the channels which intersect the primitive enclosures. It had already been a day *cretâ notanda* in my collecting journal. I had just taken my first nest of *Hypolais upcheri*, shot the birds, and ascertained I had a new species in my bag. I had secured four or five specimens of a Serin unknown, with a nest of hard-set eggs; and this, too, proved to be new, my *Serinus aurifrons*. Two new species on the highway of ordinary travel were pretty well for a day's work; and I sat down, and was employed in blowing the eggs of Upcher's Warbler, when from a pear-tree overhead burst forth a song equal to that of the Thrush, but shorter; it was new to me; but I could not see the musician. He began again, and I caught sight of a jerking red tail in a pear-tree at a little distance. I took it for *Petrocincla saxatilis*, as he perched with his back to me, and the sun glanced upon him. Soon the eggs were hurried into my case, and I was up in pursuit. Off he went out of the vineyards to the bare moraine beyond, and sat, Chat-like, on a boulder. I kept him in sight as he popped from rock to rock, and at length, as he was returning towards his first perch among the fruit-trees, I had a fair shot at him, and he fell just outside the crumbling wall, not a feather lost or soiled. "African again!" said I to myself, as I fondly examined my prize. I soon heard another male of the

same, but had only a distant glimpse of him, and it was too late in the day to remain longer in pursuit. The females were, no doubt, sitting not far off; but I never saw them, and a more hopeless labyrinth in which to search for the nests of ground-builders like the Chats cannot be conceived. The very vineyards are merely long rows of parallel ridges of loose stones, six feet wide and four feet high, raised at intervals of twelve paces, and on which the vines are trailed. One might have to remove a whole ton-weight of stones on the chance of finding a nest, even when the bird had been exactly marked in. The few nests of Rock-Chats that are in my cabinet I hold to be among my hardest-earned treasures. No Chat or Redstart I ever heard has so clear or bell-like a note as *B. albigularis*; and if it were more prolonged, it might rival the Bulbul's. My female specimen was procured a week or two later, among oak-coppice on the eastern shoulder of Lebanon, where she was incubating. Again we heard her mate among the thick foliage of the evergreen oaks, but did not obtain him. The eggs are very pale blue, thickly studded with brown spots, and larger than those of the Wheatear.

In the *Saxicolinæ*, Palestine is richer than in any other sub-family. No less than nineteen species enriched my collection; yet not one of these was new. Nearly the whole of the species were obtained in the very narrow limits of Southern Judæa, a district admirably adapted for these birds, which are in rocky and saline deserts the representatives of the Sylviads of our woods and glades. Many of the species are closely allied in form and plumage; yet often amongst the nearest there is some very marked distinction. Thus few birds can be closer than *Saxicola lugens*, Licht., and *S. libanotica*, H. & Ehrenb., the only differences being that in the former the black extends right across the back, and the feathers of the vent are faintly rufous, while in the latter the black is interrupted in the centre of the back, and the vent is like the belly, white. But the one is a summer migrant, the other a resident. In *S. lugens* the sexes are precisely alike in plumage; the female of *S. libanotica* is an ashy-brown bird, which might without comparison be easily taken for *S. isabellina*, from which it differs only in size and in the greater extent of white on the rump.

Again, in the case of the *resident* Chats, their extremely restricted habitat is remarkable. Often within very narrow limits they are numerous, yet do not occur beyond these in districts apparently as well suited for their development. This is especially the case with respect to the genus *Dromolæa*. *D. monacha*, Rüpp., a Nubian bird, which I never found in the Sahara (though it is erroneously given by Loche, who mistook for it the next species, as I ascertained by examination of his specimens), we only met with at the south end of the Dead Sea, about the salt-mountain of Jebel Usdum. Nor has it yet been noticed from Arabia. When in full plumage it is the most elegant of the group. It is the type of *Dromolæa*, and is more slender and graceful than any other species. The bill is very long and slender, and the tail longer than in any of its congeners. The adult male has not only the head, nape, and belly, but also the whole tail, with the exception of the two median rectrices, spotless white, the rest of the plumage glossy black. In the young male the plumage is more dusky and the white less pure. The female is ashy-brown instead of black. We obtained it in all stages of plumage.

In the same region, but extending much further into the rocky wilderness and higher up the western shores of the Dead Sea, is *D. leucocephala*, Brehm, a much stouter and more robust though shorter bird, and with a very strong bill. The sexes are identical in plumage; and the whole under surface is glossy black, while the white does not extend nearly so far on the rump as in the last species. With reference to the contrast between their bills, we may remark that while *D. monacha* lives on the sand and on the salt-hills, this one seeks its food among the rocks above. It was an old acquaintance of mine in the Algerian Sahara, as was also *D. leucopygia*, Br., of which we procured a few in the rocks above Engedi. The only distinction between these two is the snow-white cap of the former; but in many of my specimens, both African and Asiatic, a white feather or two peeps out on the head of *D. leucopygia*. It is possible the cap is acquired by age; but certainly both forms breed, and I never found them interbreed. They may do so, yet we generally saw a few of the one type in one locality and

a few miles off would meet with two or three of the other. I believe that in Nubia they are said to intermingle. There is not the slightest difference between the sexes*.

While riding across the southern wilderness from the south end of the Dead Sea, we came upon a rolling plain to the south of Moladah, a day's journey east of Beersheba, covered with stunted scrub, chiefly of *Passerina hirsuta*, on a loose sandy soil. All exactly resembled what is called the Forest of the Chambaa in the Sahara. Larks were flocked in thousands; Sand-Grouse of three or four species ran on in the distance or rose in clouds with a whirr and a scream; the Common Dotterels mingled with *Charadrius asiaticus* were feeding in myriads, unconcerned at our presence. Bird nature was indeed alive, in glad contrast to the lifeless rocks over which we had recently scrambled. Here we renewed acquaintance with two species which I first described from specimens shot in the Chambaa wilderness (Ibis, 1859, p. 58), *Calandrella reboudia* and *Saxicola philothamna*. For the moment I seemed transported to the Sahara. Almost every bird, every plant around was identical. *S. philothamna* was most abundant. I believe we secured about a dozen in an hour; and the birds were not in flocks, but in scattered pairs. Yet it has nowhere been discovered in the intervening 1500 miles between its two known habitats. We never saw it afterwards; and the scrub where it resided cannot be more than ten miles in extent. It has been subjected to a divorcing process in its nomenclature. The female used to stand alone in the Berlin Museum, marked *Saxicola ruficeps*; and again, unless I mistake, Sig. De Filippi has renamed a female specimen *Dromolæa chrysopygia* †.

The Common Wheatear, *S. ænanthe*, we never saw in winter or till 19th March, when Carmel was covered with them. They only remained a few days, and then passed northwards. Most of them were of the large-billed variety named *S. rostrata* by Ehrenb., but we got others with bills no larger than English specimens. On the top of Hermon and Lebanon, close to the snow,

* Of most of these Chats I have given full descriptions in 'The Ibis,' 1859p, p. 296-301, which render a more lengthened account unnecessary.

† [Cf. *suprà*, pr. 61.—ED.]

we found the Wheatear breeding in great numbers at the beginning of June. All we examined there were *S. rostrata*. I never saw any specimens so bright in plumage. The proportions of the bill in the two varieties are 2 to 2.25 inches in width at the nostrils, and 7 to 9 inches in length. While our own Wheatear only appears on migration, a very closely allied form belonging to the hotter regions of Northern Africa, *S. isabellina*, remains all the year, and breeds on Hermon, only two hours' walk lower down than *S. rostrata*. Mr. Selater pointed out to me the identity of *S. saltatrix*, Ménét., with *S. isabellina*, Rüpp.; and I fully agree with him, excepting that there seems to be a slight constant difference in size between the two,—the species which breeds in mountains being rather the larger, and that which is so numerous in the Judæan desert in winter, which I take to be the typical *S. saltatrix*, having a black line from the gape to the eye, wanting in all the northern specimens, and which I can scarcely take to be merely a seasonal distinction. The nest and eggs of *S. isabellina*, which have not before been described, are exactly like those of our common Wheatear. We found them in the beginning of June hard-set.

The only Chat which is a permanent resident and generally distributed, though not in large numbers, over the whole of Northern and Central Palestine, *i. e.* the Hill-country, is *S. libanotica*, H. & Ehrenb., which has been already mentioned, and the differences between it and the *S. lugens* of Lichtenstein pointed out. It differs similarly in its back plumage from *S. leucomela*, Gould, while the vent of both is white. It is a very conspicuous bird on the rocky hills by the coast, but does not come so far inland as the next species, nor is it ever found in the Dead-Sea region. It was not till the breeding-season that we ascertained the remarkable difference between the sexes, having taken the female for a distinct species. She has a uniform cinereous back, dark brown wings, white rump; tail white, with broad black termination like the male; throat pale ashy brown, rest of the lower parts dull white. They breed under stones, laying four or five eggs of a delicate bluish white, with pink freckles sparsely scattered over the whole surface, and which are not to be distinguished from those of *S. philothamna* or *S. lugens*.

The *S. leucomela*, Pall., with the black back and white vent-coverts, we only obtained once, but may often have overlooked it; but the *S. lugens*, Licht. (*S. leucomela*, Temminck), with the russet vent-coverts, was very common throughout the year in the rocky regions overhanging the Jordan valley and in the Judæan wilderness. If *S. libanotica* were Israelite, *S. lugens* was of Judah; for never out of Rehoboam's kingdom did we find it. There it remained, its plumage varying neither from sex nor season, always at once to be identified by its ruddy vent. While we shot it by the shores of the Dead Sea, it also resorted to the fallow fields of the uplands; and on one occasion I found a nest (with young instead of eggs, fortunately or unfortunately as the case might be) in the stone wall of a barley-field. We once took the eggs exactly like those of *S. libanotica*.

Of what we may term the Stapazine subdivision of the section, five species occurred to us. Of my *Saxicola halophila* I obtained but one specimen, under Jebel Usdum, the salt-mountain, where also alone *S. monacha* occurred. My type specimen I also procured at a salt-mountain in the Sahara. Another species, similar in its habitat but much more widely diffused, *S. deserti*, Rüpp., frequents the shores of the Dead Sea, north and south. It is frequently found in Africa, east and west, in Arabia, and is stated by Jerdon to be also common in suitable localities in Northern India. It differs from *S. stapazina* of Europe in its head and back being sand-coloured instead of rufous, and the black of the throat extending down the breast and on to the shoulder. It is also a permanent resident. In its winter dress the black portions of the plumage are powdered and mottled with white on the borders of the feathers.

But the exact analogue of the Western *S. stapazina* is *S. eurymelena*, H. & Ehrenb. It is a spring migrant, returning in great numbers in March. The first we obtained was on the 16th. On all the hills and cultivated plains, north and south, it was then found very plentifully, scattered everywhere like the Lark. There seems to be a curious change of plumage after its migration. The specimens we shot at first were all russet-colour like the Stapazine; but this rapidly became silvery-white and of a lustre unrivalled in any other species. The white appeared

to grow over the ruddy colour, especially on the head, which gives some of my skins a peculiar light iron-grey hue. The female has the whole of the upper parts and the throat a russet-brown, and the rest of the lower parts a reddish-white. This Chat has habits intermediate between those of the Wheatear and the Stonechat, often perching on bushes, and not dropping behind a stone so invariably as the Rock-Chats. In every state of plumage it can at once be discriminated from the Stapazine by the greater extent of black on the throat, and a corresponding extent of brown in the female. The eggs are exactly like those of its congener—blue, with red spots over the whole surface; and the nest is on the ground, generally in a crevice under a rock, sometimes at the root of a bush on the hill-sides.

We obtained but one specimen of *S. xanthomela*, H. & Ehrenb., at Shiloh in December. I was attracted to it by its flight and manner, very different from that of *S. libanotica*, which it closely resembles in the upper plumage; but, unlike any other member of the family, the black in front extends over the whole breast and down the flanks. The white of the head and back was tawny; but as the same feature appears in *S. eurymelana* before it assumes the full nuptial dress, Ehrenberg's name is probably ill-chosen. It is, however, a most distinct species; and not the least curious fact in its history is its being found in winter where all those closely allied to it are summer visitants only.

A very few days after the return of *S. eurymelana*, appeared the eastern representative of *S. aurita*, *S. amphileuca*, H. & Ehrenb. It varies in plumage exactly like *S. eurymelana*, from the tawny to the iron-grey. The females also are exactly like the others, with the invariable exception that the throat, which is white in the male, is in the female of the same rufous tint as the rest of the under parts. Thus both male and female differ in the colour of the throat from the allied *S. eurymelana*. This seems sufficient to decide the species; for in habits, note, nest, and eggs they are precisely alike. They inhabit, too, the same districts, even the same fields; but I can discover no trace of their interbreeding. The difference between the two species appears to be analogous to that between the Whinchat and

the Stonechat—which no one ever dreams of confounding, any more than an observer of the living birds would confound the Palestine species, or the Stapazine and Eared Chats.

There are few more interesting birds in the Holy Land than the Blackstart, *Pratincola melanura*, Rüpp. (*Cercomela asthenia*, Bp.). It was first described from Abyssinia and Arabia, but is also mentioned by Dr. Jerdon as apparently extending to Sindh. Its Palestine range is most limited—the mouths of the wadys opening on the Dead Sea, up which it extends sometimes a few miles, so that it may be found sparsely up the whole ravine of the Kedron. It is a lively and fearless bird, perching rather more frequently on a bare twig than on a stone, and recalling the Stonechat much more than the Wheatear. Its note is only heard during the breeding-season, and is loud and not varied as it sits for some time motionless but for the jerking of its tail. The nest is placed in a chink among the boulders; and the eggs are like those of the Stapazine, but smaller, clear blue, with russet spots sparsely scattered over the surface. We first met with it not very far from Jerusalem, on the road to Jericho, and found it most abundant at Engedi, where we might have shot fifty in a morning. It is also common about the salt-mountain, but eschews the fertile oases, while it hangs about their outskirts. There is no difference whatever between the sexes. The only other members of the genus *Pratincola* are the Whinchat and Stonechat. The former (*P. rubetra*) we only observed on passage in spring passing to the northward, but never remaining to breed. *P. rubicola* was extremely abundant in every part of the country, from the Mediterranean shores to the Dead Sea, in winter, but took its departure in the beginning of March, not remaining even in the highlands of Lebanon. *Accentor modularis* only just makes good its claim as a bird of Palestine by residing in the Lebanon throughout the year, where, however, it is very scarce.

IV.—*A Month in Tripoli*. By W. T. H. CHAMBERS.

BELIEVING that the ornithology of Tripoli is a subject about which little has hitherto been known, I am induced to hope